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10/716,202	11/19/2003	Mark D. Wasson	P68795US0	4117
136 IACORSON H	JACOBSON HOLMAN PLLC  EXAMINER			
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)			
	10/716,202	WASSON ET AL.			
Office Action Summary	Examiner	Art Unit			
	Paras Shah	2626			
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the c	correspondence address			
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING D/  Extensions of time may be available under the provisions of 37 CFR 1.1: after SIX (6) MONTHS from the mailing date of this communication.  If NO period for reply is specified above, the maximum statutory period versiling to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tir will apply and will expire SIX (6) MONTHS from , cause the application to become AB ANDONE	N. mely filed the mailing date of this communication. ED (35 U.S.C. § 133).			
Status					
1)⊠ Responsive to communication(s) filed on <u>09 Ja</u> 2a)⊠ This action is FINAL. 2b)□ This     3)□ Since this application is in condition for alloware closed in accordance with the practice under E	action is non-final. nce except for formal matters, pro				
Disposition of Claims					
4) ☐ Claim(s) 1-55 is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1,3-12,14-16,18-37,39-41,43-52,54 ag 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or	wn from consideration.  nd 55 is/are rejected.				
Application Papers					
9) The specification is objected to by the Examine  10) The drawing(s) filed on is/are: a) accomplished any accomplished any objection to the Replacement drawing sheet(s) including the correct and the one of the one of the order of t	epted or b) objected to by the drawing(s) be held in abeyance. Se tion is required if the drawing(s) is ob	e 37 CFR 1.85(a). ojected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>					
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08)	4)  Interview Summary Paper No(s)/Mail D 5)  Notice of Informal F	ate			
Paper No(s)/Mail Date	6)				

Application/Control Number: 10/716,202 Page 2

Art Unit: 2626

#### **DETAILED ACTION**

1. This communication is in response to the Arguments and Amendments filed on 01/09/2008. Claims 1-55 are pending and have been examined, with claims 2, 13, 17, 27, 38, 42, and 53 being cancelled. The Applicants' amendment and remarks have been carefully considered, but they do not place the claims in condition for allowance. Accordingly, this action has been made FINAL.

2. All previous objections and rejections directed to the Applicant's disclosure and claims not discussed in this Office Action have been withdrawn by the Examiner.

### Response to Arguments

3. Applicant's arguments (pages 17-25) filed on 01/09/2008 with regard to the rejections regarding 35 U.S.C. 101 and 35 U.S.C. 112, have been fully considered but they are not persuasive.

Regarding the rejection under 35 U.S.C. 101, the rejection is maintained. Although, the claims recite functional descriptive material, which cause the claim to be structurally and functionally interrelated, it is unclear as to what the computer usable storage medium encompasses. If the computer usable storage medium encompasses signal, then the claim is nonstatutory since it would recited nonfunctional descriptive material. The computer usable storage medium must be a physical structure, not a signal, which permits the functionality to be realized with a computer. (see *In re* Warmerdam and *In re* Lowry, 32 USPQ2d 1031 (Fed. Cir. 1994)).

Art Unit: 2626

Regarding the single means rejection under 35 U.S.C. 112, the rejection is maintained. As to the rejection, claim 16 recites the use of pattern recognition rule for performing a specific task. Although the claim does not recite "means" terminology, the claim still is covering every structure for achieving the stated property. Specifically, every text pattern recognition rule is being claimed. Since there are many possible types of recognition rules it creates an undue breath.

Applicant's arguments with regard to claims 1, 16, 20, 26, and 41 have been fully considered but are moot in view of new grounds for rejection. Due to the newly added limitations, "annotating text with regular expression-based-attributes and with tree-based attributes."

# Response to Amendment

4. Applicants' amendments filed on 01/09/2008 have been fully considered. The newly amended limitations in claims 1, 16, 20, 26, 41 necessitate new grounds of rejection.

# Specification

- 5. A new title was acknowledged. whish was submitted on 01/09/2008. However, the title of the invention is still not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
- 6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction

Art Unit: 2626

of the following is required: The use of a computer program product is not mentioned in the specification nor is any description or definition given as to what the computer usage storage medium encompasses.

# Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the claimed invention is directed to non-statutory subject matter.

Claims 26-40 are directed toward non-statutory subject matter.

The term "computer usable storage medium" is not fully explained in the Applicant's specification. Hence, the term computer usable medium has also been interpreted to include signals and carrier waves, which are non-statutory. See MPEP 2106.01 [R-5].

# Claim Rejections - 35 USC § 112

- 8. The following is a quotation of the first paragraph of 35 U.S.C. 112:
  - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 9. Claim 16 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "text pattern recognition rule", does not reasonably provide enablement for the cited limitation as a result of undue breadth. The specification does not enable any person skilled in the art to which it pertains, or with

Art Unit: 2626

which it is most nearly connected, to make and use the invention commensurate in scope with these claims. The claim is a single means claim which covers every structure for achieving the stated property see MPEP2164.08(a).

# Claim Rejections - 35 USC § 103

- 9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 10. Claims 1, 3, 4, 8, 9, 10, 12, 14-16, 18, 19, 25, 26, 28, 29, 33-35, 37, 39, 40, 41, 43, 44, 48-50, 52, 54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunningham *et al.* (Developing Language Processing Component with GATE (a User Guide), 2001-2002) in view of Tokuda *et al.* (US 2003/0154070) in view of Feldman *et al.* (US 6,442,545).

As to claims 1, 26, and 41, Cunningham *et al.* teaches a fact extraction tool set for extracting information from a document, comprising:

means for annotating a text (see sect. 6.1, 6.4, and 6.5) (e.g. The text is being annotated by part of speech, semantics, tokenized, among others); and means for extracting facts from the annotated text (see page 104, 6.8) (e.g. The example is extracting the phrase 800,000, US dollars from the text using the annotations) using pattern recognition rules using regular expression functionality (see page 7, sect. 1.3.3, last two lines) and auxiliary definition (see

Art Unit: 2626

page 82, 3<sup>rd</sup> paragraph, and rule below) (e.g. From the cited portion a definition of GazLocation is given for a portion of the pattern.)

However, Cunningham et al. does not specifically teach annotation of treebased attributes.

Tokuda et al. does teach the annotation of tree based attributes (see [0013], POS tags are assigned and a tree based grammar is generated and see Figure 2 and Figure 5).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the fact extraction as taught by Cunningham *et al.* with the annotation of tree-based attributes as taught by Tokuda *et al.* for the purpose of accurately analyzing natural language sentences that arbitrary and ambiguous (see Tokuda, [0002] and [0016]).

However, Cunningham *et al.* in view of Tokuda *et al.* do not specifically disclose the XPath –based functionality

Feldman *et al.* does disclose the use of XPath-based (tree traversal, also defined by the applicant, see Applicant's Specification, page 3, line 2) functionality (see col. 2, lines 15-22) (e.g. Hierarchical taxonomies are referred to and relationships are built).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the fact extraction taught by Cunningham *et al.* in view of Tokuda *et al.* with the use of XPath functionality as taught by Feldman *et al.* The motivation to have combined the references

Art Unit: 2626

involves content-based and quantitative analysis of documents (see col. 2, lines 19-22) in order to determine relationships among words in a document or documents (see Feldman, Abstract and col. 12, lines 10-25, where POS is taken into consideration to determine relationships.)

As to claims 3, 28, and 43, Cunningham *et al.* in view of Tokuda in view of Feldman teach al of the limitations as in claim 1, above.

Furthermore, Cunningham *et al.* teaches wherein, the means for annotating text (see sect. 6.4 and 6.5, and page 62, sect. 4.4.2, last paragraph) comprises means for breaking the text passage into its base tokens and annotating the base tokens and patterns of base tokens (see sect 6.1, page 94, 1<sup>st</sup> paragraph) (e.g. The annotations will be made to base tokens as well as patterns of base tokens depending on relationships and coreferences.) with a number of orthographic (see sect 6.1, page 94, 1<sup>st</sup> paragraph), syntactic (see sect. 4.4.2, last paragraph), semantic (see sect. 6.5), pragmatic (see sect. 6.7.1, 1<sup>st</sup> paragraph) (e.g. The applicant refers to pragmatic as being identifying quotations, see Applicants specification, page 23, line 4) and dictionary-based attributes (see sect. 6.6.2 and see 6.2) (e.g. A table is used to determine id strings are of the same entity and the latter citation refers to names and cities).

As to claims 4, 29, and 44, Cunningham *et al.* in view of Tokuda in view of Feldman teach al of the limitations as in claim 3, above.

Furthermore, Cunningham *et al.* teaches wherein, the attributes include tokenization (see sect. 6.1), text normalization (see , part of speech tags (see sect. 6.4.), sentence boundaries (see sect. 6.3), parse trees (see page 62, sect. 4.42, last paragraph-page 63, first three lines) (e.g. It is seen that annotations can be represented in hierarchical representation of a parse tree), semantic attribute tagging (see. sect. 6.5) and other interesting attributes of the text (see sect. 6.6).

As to claims 8, 25, 33, and 48, Cunningham *et al.* in view of Tokuda in view of Feldman teach al of the limitations as in claim 3, above.

Furthermore, Cunningham et al. teaches wherein, the means for breaking the text passage into its base tokens and annotating the base tokens and patterns of base tokens comprises independent annotators, wherein the annotators are of three types comprising:

token attributes, which have a one-per-base-token alignment, where for the attribute type represented, there is an attempt to assign an attribute to each base token (see sect. 6.1, 6.1.2) (e.g. From the cited sections, once the text is broken into tokens, the attributes are identified, regarding punctuation, symbols, space, number, and orthographic type).;

constituent attributes assigned yes-no values, where the entire pattern of each base token is considered to be a single constituent with respect to some annotation value (see page 62, last paragraph, and page 63, 1<sup>st</sup> three lines, and

table 4.1.) (e.g. From the tokenization, pos is used and tagged. Further, the annotations can be used to show the hierarchical representation of the text.

Further, it is seen that the all of the tokens represent a pattern associated with the sentence.);

and links, which assign common identifiers to coreferring and other related patterns of base tokens (see sect. 6.6) (e.g. In this cited section relations between identities are found for match names (see sect. 6.7) (e.g. pronominal coreference). Hence, it is implied by the reference that identifiers are used to relate associated pronouns (See page 101, "Pronoun resolution")).

As to claims 9, 10, 34, 35, 49, and 50, Cunningham *et al.* in view of Tokuda in view of Feldman teach al of the limitations as in claim 3, above.

Furthermore, Cunningham *et al.* teaches wherein the means for annotating a text further comprises means for associating all annotations assigned to a particular piece of text (see page 81, 2<sup>nd</sup> paragraph, three bullets) (e.g. From the cited section it is evident that a pattern is specified by specifying attributes to the tokens and then specifying an annotation based upon previous assignment), with the base tokens for that text to generate aligned annotations (e.g. This occurs when matching patterns.)

As to claims 12, 16, 37, and 52, Cunningham *et al.* in view of Tokuda in view of Feldman teach al of the limitations as in claim 10, above.

Art Unit: 2626

Furthermore, Cunningham et al. teaches wherein, the means for identifying and extracting potentially interesting pieces of information text (see page 104, 6.8) comprises at least one text pattern recognition rule written in a rule-based information extraction language (see page 81, 2<sup>nd</sup> paragraph, three bullets and sect. 6.1.1) (e.g. From the cited section it is evident that a pattern is specified by specifying attributes to the tokens and then specifying an annotation based upon previous assignment. LHS and RHS rules are used), wherein the at least one text pattern recognition rule queries for at least one of literal text, attributes, and relationships found in the aligned annotations to define the facts to be extracted (see page 81, last two paragraphs, and pages 82 and 83) (e.g. It is evident that from the input, attributes or annotations are specified and the latter citation is shown as a variety of data formats are possible and are looked upon in an existing list, which are compared (queried)) using regular expression functionality (see page 7, sect. 1.3.3., last two lines) and auxiliary definition (see page 82, 3<sup>rd</sup> paragraph, and rule below) (e.g. From the cited portion a definition of GazLocation is given for a portion of the pattern.)

Furthermore, Feldman et al. teaches the use of XPath-based (tree traversal, also defined by the applicant, see Applicant's Specification, page 3, line 2) functionality (see col. 2, lines 15-22) (e.g. Hierarchical taxonomies are referred to and relationships are built and relationships are determined using term types, i.e. POS (see col. 12, lines 10-24)).

Art Unit: 2626

As to claims, 14,18, 39, and 54, Cunningham et al. discloses wherein,

the at least one text pattern recognition rule comprises a pattern that describes the text of interest (see page 82, 3<sup>rd</sup> paragraph, and rule below) (e.g. From the cited portion a definition of GazLocation is given for a portion of the pattern. This is an example of a rule.), a label that names the pattern for testing and debugging purposes (see page 81, 2<sup>nd</sup> paragraph and 2<sup>nd</sup> bullet) (e.g. A label; for debugging can be set in order to see any conflicts.); and an action that indicates what should be done in response to a successful match (see page 142, numeral2, subnumeral 2) (e.g. The algorithm in the cited section is used in the JAPE rules, which is a finite state machine and action executed).

As to claims 15, 19, 40, and 55, Cunningham Cunningham *et al.* in view of Tokuda in view of Feldman teach al of the limitations as in claim 12, above.

Furthermore, Cunningham *et al.* teaches wherein the means for identifying and extracting potentially interesting pieces of information further comprises at least one auxiliary definition statement used to name and define a fragment of a pattern (see page 84, 1<sup>st</sup> and 2<sup>nd</sup> paragraph) (e.g. The auxiliary definition or label is assigned to the year based on the pattern of word in or by found in the text)..

11. Claims 20 and 21are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunningham *et al.* (Developing Language Processing Component with GATE (a User Guide), 2001-2002) in view of Tokuda *et al.* (US 2003/0154070).

Art Unit: 2626

As to claim 20, Cunningham *et al.* teaches wherein, a text annotation tool comprising:

means for breaking the text passage into its base tokens;

means for annotating the base tokens and patterns of base tokens (see sect 6.1, page 94, 1<sup>st</sup> paragraph) (e.g. The annotations will be made to base tokens as well as patterns of base tokens depending on relationships and coreferences.) with a number of orthographic (see sect 6.1, page 94, 1<sup>st</sup> paragraph), syntactic (see sect. 4.4.2, last paragraph), semantic (see sect. 6.5), pragmatic (see sect. 6.7.1, 1<sup>st</sup> paragraph) (e.g. The applicant refers to pragmatic as being identifying quotations, see Applicants specification, page 23, line 4) and dictionary-based attributes (see sect. 6.6.2 and see 6.2) (e.g. A table is used to determine id strings are of the same entity and the latter citation refers to names and cities).

means for associating all annotations assigned to a particular piece of text with the base tokens for that text to generate aligned annotations. (see page 81, 2<sup>nd</sup> paragraph, three bullets) (e.g. From the cited section it is evident that a pattern is specified by specifying attributes to the tokens and then specifying an annotation based upon previous assignment), with the base tokens for that text to generate aligned annotations (e.g. This is implied when matching patterns.)

However, Cunningham *et al.* does not specifically teach annotation of treebased attributes.

Art Unit: 2626

Tokuda et al. does teach the annotation of tree based attributes (see [0013], POS tags are assigned and a tree based grammar is generated and see Figure 2 and Figure 5).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the fact extraction as taught by Cunningham *et al.* with the annotation of tree-based attributes as taught by Tokuda *et al.* for the purpose of accurately analyzing natural language sentences that arbitrary and ambiguous (see Tokuda, [0002] and [0016]).

As to claim 21, Cunningham *et al.* in view of Tokuda in view of Feldman teach al of the limitations as in claim 20, above.

Furthermore, Cunningham *et al.* teaches wherein, the attributes include tokenization (see sect. 6.1), text normalization (see , part of speech tags (see sect. 6.4.), sentence boundaries (see sect. 6.3), parse trees (see page 62, sect. 4.42, last paragraph-page 63, first three lines) (e.g. It is seen that annotations can be represented in hierarchical representation of a parse tree), semantic attribute tagging (see. sect. 6.5) and other interesting attributes of the text (see sect. 6.6).

12. Claims 5-7, 30-32, and 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunnigham *et al.* in view of Tokuda in view of Feldman, as applied to claim 1, above and further in view of Broder *et al.* (US 2004/0243645).

Art Unit: 2626

As to claims 5, 30, and 45, Cunnigham et al. in view of Tokuda in view of

Feldman teach all of the limitations as in claim 1, above.

However, Cunningham *et al.* in view of Tokuda in view of Feldman do not specifically teach the comprising of independent annotators.

Broder *et al.* discloses the use of independent annotators (see [0153]) (e.g. It is seen that independent annotations are used for each type of word pairs.)

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have combined the fact extraction and annotation taught by Cunningham *et al.* in view of Tokuda in view of Feldman with the independent annotation taught by Broder *et al.* The motivation to have used independent annotators is to resolve the issue of overlapping annotations that occurs in nested XML (see Broder *et al.* [0128]).

As to claims 6, 31, and 46, Cunnigham *et al.* in view of Tokuda in view of Feldman in view of Broder teach all of the limitations as in claim 1, above

Furthermore, Cunningham et al. teaches

the use of XML for representing annotated text (see page 60, sect. 4.4.1, 1st paragraph).

As to claims 7, 32, and 47, Cunnigham *et al.* in view of Tokuda in view of Feldman in view of Broder teach all of the limitations as in claim 1, above.

Art Unit: 2626

Furthermore, Cunningham *et al.* teaches means for resolving conflicting annotation boundaries in the annotated text to produce well-formed XML from the results of independent annotators (see [0153]) (e.g. From the cited sections it is seen that the boundaries of the word pairs are resolved from the previous conflict for differentiation by using separate annotations).

13. Claims 11, 36, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunningham *et al.* in view of Tokuda in view of Feldman, as applied to claim 10, above and further in view of Marcus *et al.* ("The PENN Treebank Annotating Predicate Argument Structure", 1994).

As to claim 11, 36, and 51, Cunnigham *et al.* in view of Tokuda in view of Feldman teach all of the limitations as in claim 10, above.

Furthermore, Cunningham *et al.* discloses wherein the means for identifying and extracting potentially interesting pieces of information comprises means for recognizing both true left and right constituent attributes (see sect. 6.1.1 and page 81, 1<sup>st</sup> paragraph) (e.g. It is seen that a left and right attributes are recognized by the tokeniser. Further it is admitted in the Applicant's background that many pattern recognition languages have rules that process text in left to right fashion(see Applicant's Specification, page 3, lines 2-3)) and constituent attributes (see page 63, 1<sup>st</sup> paragraph).

However, Cunningham *et al.* in view of Tokuda in view of Feldman does not specifically disclose the identification of non-contiguous attributes.

Art Unit: 2626

Marcus et al. does disclose the identification of non-contiguous attributes (see page 117, sect. 6, 2<sup>nd</sup> paragraph and example at bottom of page 117 on right hand column) (e.g. An index number is added to the label of the original constituent and allows interpretation).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the fact extraction taught by Cunningham *et al.* in view of Tokuda in view of Feldman with the identification of non-contiguous attributes taught by Marcus *et al.*. The motivation to have combined the references involves the ability to represent sentences where complements of verbs occur after a sentenial level verb (see Marcus *et al.*, page 117, sect. 6, 1<sup>st</sup> paragraph), which would benefit the fact extraction tool taught by Cunningham *et al.* in view of Tokuda in view of Feldman for recognizing discontinuous constituents.

14. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunnigham *et al.* in view of Tokuda, as applied to claim 1, above and further in view of Broder *et al.* (US 2004/0243645).

As to claim 22, Cunnigham *et al.* in view of Tokuda teach all of the limitations as in claim 1, above.

However, Cunningham *et al.* in view of Tokuda in view of Feldman do not specifically teach the comprising of independent annotators.

Art Unit: 2626

Broder et al. discloses the use of independent annotators (see [0153]) (e.g. It is seen that independent annotations are used for each type of word pairs.)

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have combined the fact extraction and annotation taught by Cunningham *et al.* in view of Tokuda with the independent annotation taught by Broder *et al.* The motivation to have used independent annotators is to resolve the issue of overlapping annotations that occurs in nested XML (see Broder *et al.* [0128]).

As to claims 23, Cunnigham *et al.* in view of Tokuda in view of Broder teach all of the limitations as in claim 1, above

Furthermore, Cunningham et al. teaches

the use of XML for representing annotated text (see page 60, sect. 4.4.1, 1<sup>st</sup> paragraph).

As to claims 24, Cunnigham *et al.* in view of Tokuda in view of Broder teach all of the limitations as in claim 1, above.

Furthermore, Cunningham et al. teaches

means for resolving conflicting annotation boundaries in the annotated text to produce well-formed XML from the results of independent annotators (see [0153]) (e.g. From the cited sections it is seen that the boundaries of the word

pairs are resolved from the previous conflict for differentiation by using separate annotations).

#### Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Saldanha *et al.* (US 6,714,939) is cited to disclose conversion of text into parse trees based on a grammar. Lemay (US 2003/0229854) is cited to teach a text extraction to extract relevant information from a document. Kunitake *et al.* (US 2001/0018697) and Uchiyama *et al.* (US 2005/0066271) are cited to disclose information extraction from

Application/Control Number: 10/716,202 Page 19

Art Unit: 2626

structured documents. Chidlovski *et al.* (US 2005/0154979) is cited to disclose conversion of legacy documents into ordered trees of schema.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paras Shah whose telephone number is (571)270-1650. The examiner can normally be reached on MON.-THURS. 7:00a.m.-4:00p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571)272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. S./ Examiner, Art Unit 2626

02/22/2008

PATRICK N. EDOUARD
SUPERVISORY FATENT EXAMINER